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HIGH-RESOLUTION OPTICAL MICROSCOPE

ABSTRACT OF THE DISCLOSURE

10 A direct-view optical microscope system is provided which uses high-energy
light from a phenomenon known as non-resonant Raman scattering to illuminate a
living biological specimen. One embodiment of the system combines two discrete
light sources to form a combined incident light source for the microscope. The
system includes a method and apparatus for modulating the intensity of the scattered
light when two light waves are combined to produce the incident light. By varying
15 the frequency of the two source light waves, the intensity of the combined Raman-
scattered light can be modulated to achieve finer resolution.